

Recovery of soil in hill dipterocarp forest after logging in Kedah, Malaysia

ABSTRACT

Knowledge on soil recovery in hill dipterocarp forests after logging is of importance for the management of forests. Samples of soils 14-years after supervised logging (SLo) and 16-years after conventional logging (CL) in a hill dipterocarp forest (HDF) at Ulu Muda Forest Reserve, Kedah were evaluated for their physico-chemical properties, soil fertility index and soil evaluation factor. Results showed the detrimental effects of logging on soil chemical characteristics and not sufficient to recover to its original state during this period. Soil Evaluation Factor (SEF) was also found to be more useful than Soil Fertility Index (SFI) for this logged-over HDF to show differences of soil quality between sites. Pearson coefficient correlation showed insignificant correlation between the SEF and tree density, basal area, volume and total biomass.

Keyword: Soil fertility index; Ulu Muda Forest Reserve; Supervised logging; Conventional logging; Soil evaluation factor